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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Alan Bradburn

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BRINKS HOFER GILSON & LIONE
P.O. BOX 10395
CHICAGO, IL 60610

EXAMINER

ROCCA, JOSEPH M

ART UNIT

PAPER NUMBER

3616

MAIL DATE

DELIVERY MODE

05/04/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/528,163	Applicant(s) BRADBUM, ALAN	
	Examiner Joseph Rocca	Art Unit 3616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) ____ is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) ____ is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>12/24/06</u> | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-2, 4-6, 10-11, and 13-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Masuda (U.S. 6,530,595 B2).

Masuda discloses:

- a. An air-bag comprising, the air-bag defining at least one inflatable region, the air-bag being provided with a gas supply duct extending into the airbag (61), the gas supply duct being formed of a flexible material () and being provided with at least one aperture (62_ therein through which an inflatable gas may flow into the said at least one inflatable region of the air-bag, the said at least one aperture being provided with a reinforcement reinforcing the periphery of the aperture (63a), and also the adhesive portion (66) (see, Col. 5, Lines 60-65; Fig. 10b).
- b. [claim 2] Wherein the flexible material comprises fabric or a plastic material (Col. 5, Lines 46-55).
- c. [claim 4] Wherein the gas supply duct is of an elongate form (Fig. 10a, Element 61).

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- d. [claim 5] Wherein the gas supply duct is provided with a plurality of apertures, each of the apertures being associated with a reinforcement (Figs. 10a, 10b, 11a, 11b, Elements 63a, 66).
 - e. [claim 6] Wherein the each of the apertures is provided with a respective reinforcement (Figs. 10-11, Elements 63a, 66; Col. 5, Lines 46-67).
 - f. [claim 10] Wherein the reinforcement is a single reinforcing element defining a plurality of apertures (Figs. 10-11; Col. 5, Lines 46-67).
 - g. [claim 11] wherein the or each reinforcing element is adhered to the flexible material (Element 66, Col. 5, Lines 61-65).
 - h. [claim 13] Wherein the reinforcing element is a region of adhesive, which also bonds parts of the flexible material together to form the gas supply duct (Element 66).
 - i. [claim 14] Wherein the aperture is in the form of a slit through the flexible material and the adhesive (Figs. 10a and 10b, Element 62), in as much as the term is defined by applicant.
 - j. [claim 15] Wherein the air-bag defines a plurality of inflatable regions or chambers (Figures 1, 6, 10, and 11, Chambers elements 11-14).
- [claim 16] Wherein the air bag is an inflatable curtain, the gas supply duct being positioned to supply gas to each of the inflatable regions or chambers (Figs. 1, 5, 10, and 11; Chambers elements 11-14).

3. Claims 1-6, 10 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Bailey (U.S. 6,073,961):

Bailey discloses:

- a. An air bag comprising, the air bag defining at least one inflatable region, the air-bag being provided with a gas supply duct extending into the airbag (70), the gas supply duct being formed of a flexible material (73) and being provided with at least one aperture (72) therein through which an inflatable gas may flow into the said at least one inflatable region of the air bag (Fig. 1a), the said at least one aperture being provided with a reinforcement reinforcing the periphery of the aperture (Figs. 1a and 1c, Element 73).
- b. [claim 2] Wherein the flexible material comprises fabric or a plastic material (Element 73; Col. 2, Lines 26-33).
- c. [claim 3] Wherein the flexible material comprises foil (Col. 2, Lines 25-34; Fig. 1c, Elements 70, 71, and 73), col. 2, lines 25-34 disclose that the tube is an elastomeric inner tube that may be made of metal, accordingly as is evident from Fig. 1c, a thin sheet is shown accordingly, this would comprise a tube made of foil. Thus, Bailey discloses the use of a flexible material that comprises foil.
- d. [claim 4] Wherein the gas supply duct is of an elongate form (70).
- e. [claim 5] Wherein the gas supply duct (70) is provided with a plurality of the apertures (72), each of the apertures being associated with a reinforcement (Figs. 1a and 1c, Elements 71 and 73).
- f. [claim 6] Wherein the each of the apertures is provided with a respective reinforcement (Figs. 1 and 1c), in as much as the reinforcement runs the entire length of the tube.

g. [claim 10] Wherein the reinforcement is a single reinforcing element defining a plurality of apertures (Element 73).

h. [claim 12] Wherein the reinforcing element is formed of fabric (Col. 5, Lines 25-34).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 7-9 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Masuda et al. (U.S. 6,530,595 B2) in view of Abraham (U.S. 5,634,659). As discussed above Masuda discloses all of the limitations of claims 7-12, including [claim 12] the reinforcing material being made of a fabric (63a); except for the reinforcement comprising stitching provided in the flexible material forming the gas supply duct or [claim 8] that the reinforcement additionally comprises a length of thread extending across the aperture so as to tie together opposing parts of the or aperture.

Nevertheless, use of said reinforcements above are old and well known in the art of airbag manufacture. Abraham discloses the use of a vent aperture reinforcement comprising stitching provided in the flexible material forming the gas supply duct (Element 36, Col. 2, Lines 30-45). Abraham further discloses the use a reinforcement that comprises a length of thread extending across the aperture so as to tie together opposing parts of the or aperture (Fig. 3). It would have been obvious to one of ordinary

skill in the art at the time the invention was made to have modified Masuda to further include the reinforcement taught by Abraham, so as to create an effective means to ensure that the airbag inflation fluid will not cause the airbag to fray or prematurely fail during activation, thereby increasing its reliability and enhancing the safety to occupants of the vehicle.

Examiner's Note

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

- i. Uchiyama (U.S. 6,554,314 B1) discloses a protective cushion for a vehicle that may be of interest to the applicant.
- ii. Sonnenberg (U.S. 6,902,187 B2) discloses an apparatus and method for airbag curtain module that may be of interest to applicant.
- iii. Kitamura et al. (U.S. 7,032,622 B2) discloses a hose for the introduction and distribution of inflation gas into an airbag, which may be of interest to applicant.
- iv. Keshavaraj (U.S. App. 2002/0067034 A1) discloses a welded airbag cushion comprising sewn reinforcement seams, and may be of interest to applicant.

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Rocca whose telephone number is 571-272-


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5191. The examiner can normally be reached on 8:30 AM to 5:00 PM, Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Dickson can be reached on 571-272-6669. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Joseph Rocca
Patent Examiner
AU-3616

 4/30/07
PAUL N. DICKSON
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600